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(54) **CAPACITIVE MICROMACHINED ULTRASONIC TRANSDUCER AND ULTRASONIC IMAGING APPARATUS**

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CPC ***B06B 1/0292*** (2013.01); ***A61B 8/4483*** (2013.01); *A61B 8/00* (2013.01); *A61B 2562/028* (2013.01)

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(57) **ABSTRACT**

The invention aims to give uniform and stable characteristics to a cMUT-cell array and to improve acoustic characteristics. To this end, a signal blocking section is additionally provided for cells **102** located in the outermost peripheral portion or at the end positions of a two-dimensional array **101** of cMUT cells that are designed and manufactured as ones usable as an ordinary transducer capable of transmission and reception of signals. The signal blocking section is provided to prevent the displacement and the vibration of the cells, and to block the transmission and the reception of signals.

12 Claims, 8 Drawing Sheets